



## FLINTEC - Type RC3 Load Cell



### Product Description

RC3 rocker column load cells are available in the capacities 7.5 t to 300 t and include Accuracy Classifications GP, C1, C3, C4, and C3 MI 8 according to OIML R60; NTEP  $n_{max}=10000$ . They offer total stainless steel construction and complete hermetic sealing, making them suitable for use in the toughest industrial environments. The RC3 is available for use in hazardous areas zone 0, 1, 2 (gas) and 20, 21, 22 (dust) according to EEx ia IIC T6...T4

### Application

- Weighbridges
- Hoppers
- Tanks
- Silos

### Basic Features

- Capacities: 7,5 t to 300 t.
- High accuracy.
- Total stainless steel construction.
- Complete hermetic sealing.
- Protection IP 68.
- High input resistance: 1100  $\Omega$ .
- W&M certified for 4000 intervals.(PTB: D09-99.09 Rev. 2)
- Calibration in mV/V/ $\Omega$ .
- Easy cable replacement.
- Complete range of loading hardware available.
- Factory Mutual approved.

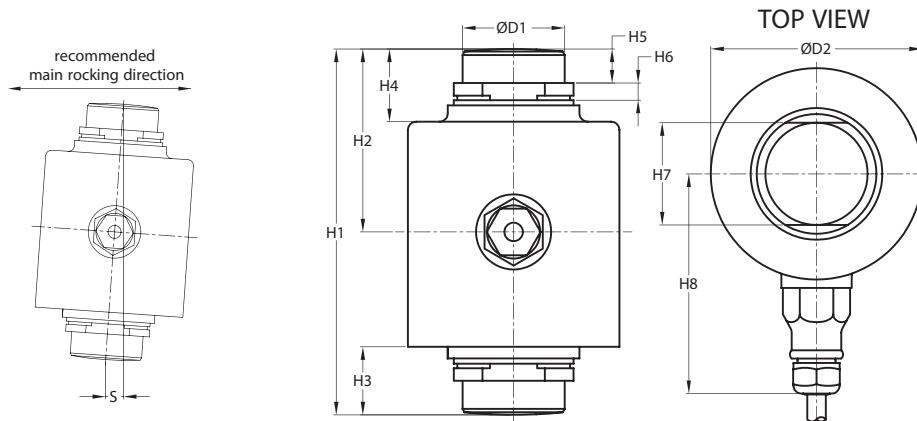
### Approvals

- OIML approval to C1 (Y = 5 000), C3, C3 MI8 and C4 (Y = 15 000)

## Specifications

Maximum capacity	(E <sub>max</sub> )	t	7.5 / 15 / 22.5 / 30 / 40 / 50 / 100 / 150 / 300	7.5 / 15 / 22.5 / 30 / 40 / 50		
Rated Output	(Cn)	mV/V	2 ± 0.1%			
Calibration in mV/V/Ω (A...I classified)	%Cn	≤ ± 0.05 ( ≤ ± 0.005)				
Accuracy class according to OIML R 60		(GP)	C1	C3	C4	C3 MI 8
Maximum number of verification intervals	(n <sub>max</sub> )	n.a.	1000	3000	4000	3000
Minimum load cell verification interval	(v <sub>min</sub> )	n.a.	E <sub>max</sub> /5000	E <sub>max</sub> /15000		
Combined error	%Cn	≤ ± 0.040	≤ ± 0.030	≤ ± 0.020	≤ ± 0.018	≤ ± 0.015
Creep error (30 minutes) / DR	%Cn	≤ ± 0.060	≤ ± 0.049	≤ ± 0.016	≤ ± 0.012	≤ ± 0.006
Temperature effect on minimum dead load output	%Cn/°C	≤ ± 0.0040	≤ ± 0.0028	≤ ± 0.0009	≤ ± 0.0009	≤ ± 0.0009
Temperature effect on sensitivity	%/°C	≤ ± 0.0020	≤ ± 0.0015	≤ ± 0.0010	≤ ± 0.0008	≤ ± 0.0010
Excitation voltage	V	5...15				
Zero balance	%Cn	≤ ± 5				
Input resistance	Ω	1150 ± 50				
Output resistance	Ω	1000 ± 2				
Insulation resistance (100 DC)	MΩ	≥ 5000				
Compensated temperature range	°C	-10...+ 40				
Operating temperature range	°C	-40...+ 80				
Safe load limit	(E <sub>lim</sub> )	%E <sub>max</sub>	200			
Ultimate load	%E <sub>max</sub>	300				
Load cell material		stainless steel 17-4 PH (1.4548)				
Sealing		complete hermetic sealing; cable entry sealed by glass to metal header				
Protection according DIN 40.050		IP 68				

## Dimensions



Type	H1	H2	H3	H4	H5	H6	H7	H8	D1	D2	S <sub>max</sub> *	RF**
RC3-7.5 t	89	44	17	23	11	6	28	75	28	65	8	11 kN
RC3-15 t	89	44	17	23	11	6	28	75	28	65	7	20 kN
RC3-22.5 t	89	44	17	23	11	6	28	75	28	65	4.5	30 kN
RC3-30 t	140	70	26	28	13	6.5	39	84	39	81	10.5	34 kN
RC3-40 t	150	75	31	33	13	11.7	39	84	39	81	10	37 kN
RC3-50 t	178	89	32	34	17	8.5	44	94	44	99	9	51 kN
RC3-100 t	178	87	34.2	36	17	12	62	90	62	120	11.5	152 kN
RC3-150 t	210	101.4	40.4	38.6	20.6	12.8	76.2	109	76.2	160	14.5	240 kN
RC3-300 t	280	143.4	53.4	51.6	25	21.5	100	119	100	180	15	468 kN

\* S<sub>max</sub>=maximum lateral displacement of load introduction. Recommended gap 2...3 mm for 7.5...22.5 t, 3...5 mm for 30...300 t.

\*\* RF =restoring force at S<sub>max</sub> and E<sub>max</sub>.

All dimensions in mm. Dimensions and specifications are subject to change without notice.

## Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24 for 7.5 to 22.5 t / AWG 20 for 30 to 300 t). Cable jacket polyurethane.
- Cable length: 12 m for 7.5 to 22.5 t, 18 m for 30 to 300 t.
- Cable diameter: 5 mm for 7.5 to 22.5 t, 7.8 mm for 30 to 300 t.
- The shield is floating (On request the shield can be connected to the load cell body).

